

WHAT IS CLAIMED IS:

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1. A method of determining one or more skills of a user as a design engineer by using a skill determination server and a skill determination client wherein the skill determination client is operated by the user and is connected to the skill determination server via a network, comprising steps of:

supplying a question file to determine the one or more skills of the user from the skill determination server to the skill determination client;

15 providing one or more answers to the question file to the skill determination client through input manipulation of the user and supplying an answer file corresponding to the one or more answers from the skill determination client to the skill determination server;

20 and

evaluating knowledge of the user based on a comparison result between the answer file and a correct answer file corresponding to the question file and determining the one or more skills of the user as a design engineer by using the skill determination server.

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30 2. The method as claimed in claim 1, wherein the question file includes a circuit design specification and a source code representing a circuit corresponding to the circuit design specification in a hardware description

language and at least partially having one or more empty spaces, and the answer file includes zero or more answers input in the one or more empty spaces in the source code.

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3. The method as claimed in claim 2, wherein the correct answer file includes correspondence between  
10 one or more correct answers to be input in the one or more empty spaces in the source code and one or more skills required to input the one or more correct answers in the one or more empty spaces.

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4. The method as claimed in claim 1, wherein the question file at least includes a circuit design  
20 specification, and the answer file includes a source code created by the user and a netlist generated by conducting logic combination on the source code, said source code representing a circuit corresponding to the circuit design specification in a hardware description language.

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5. The method as claimed in claim 4, wherein  
30 the correct answer file includes correspondence among an input signal to conduct logic verification on a circuit represented by the netlist, an output signal to be output in response to inputting of the input signal in the

circuit, and one or more skills required to generate the output signal from the circuit.

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6. A method of determining one or more skills of a user as a design engineer by using a skill determination server, a skill determination client and a skill determination evaluation board wherein the skill  
10 skill determination client is operated by the user and is connected to the skill determination server via a network, and the skill determination evaluation board is connected to the skill determination client via an interface,  
15 comprising steps of:

supplying a question file to determine the one or more skills of the user from the skill determination server to the skill determination client;

providing one or more answers to the question  
20 file to the skill determination client through input manipulation of the user and supplying an answer file corresponding to the one or more answers from the skill determination client to the skill determination evaluation board;

25 configuring a circuit corresponding to the answer file on an actual element by using the skill determination evaluation board;

supplying an input signal to conduct logic verification on the circuit from the skill determination  
30 server to the skill determination evaluation board and supplying an answer output signal generated from the circuit in response to inputting of the input signal in the circuit from the skill determination evaluation board

to the skill determination server; and

evaluating knowledge of the user based on a  
comparison result between a correct answer output signal  
to be output in response to inputting of the input signal  
5 in the circuit and the supplied answer output signal and  
determining the one or more skills of the user as a design  
engineer by using the skill determination server.

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7. The method as claimed in claim 6, wherein  
the question file at least includes a circuit design  
specification, and the answer file at least includes a  
15 netlist generated by conducting logic combination on a  
source code created by the user, said source code  
representing a circuit corresponding to the circuit design  
specification in a hardware description language.

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8. The method as claimed in claim 7, wherein  
the correct answer output signal includes correspondence  
25 among an input signal to conduct logic verification on the  
circuit, an output signal to be output in response to  
inputting of the input signal in the circuit, and one or  
more skills required to generate the output signal from  
the circuit.

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9. A method of determining one or more skills of a user as a design engineer by using a skill determination server, a skill determination client and a skill determination evaluation board wherein the skill
- 5 determination client is operated by the user and is connected to the skill determination server via a network, and the skill determination evaluation board is connected to the skill determination client via an interface, comprising steps of:
- 10 supplying a question file to determine the one or more skills of the user from the skill determination server to the skill determination client;
- providing one or more answers to the question file to the skill determination client through input
- 15 manipulation of the user and supplying an answer file corresponding to the one or more answers from the skill determination client to the skill determination evaluation board;
- 20 configuring a circuit corresponding to the answer file on an actual element by using the skill determination evaluation board;
- supplying an input signal to conduct logic verification on the circuit and a correct answer output signal to be output in response to inputting of the input
- 25 signal in the circuit from the skill determination server to the skill determination evaluation board and supplying a comparison result between the correct answer output signal to be output in response to inputting of the input signal in the circuit and an answer output signal
- 30 generated from the circuit from the skill determination evaluation board to the skill determination server; and
- evaluating knowledge of the user based on the comparison result supplied from the skill determination

evaluation board and determining the one or more skills of the user as a design engineer by using the skill determination server.

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10. The method as claimed in claim 9, wherein the question file at least includes a circuit design specification, and the answer file at least includes a netlist generated from a source code created by the user, said source code representing a circuit corresponding to the circuit design specification in a hardware description language.

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11. The method as claimed in claim 10, wherein the correct answer output signal includes correspondence among an input signal to conduct logic verification on the circuit, an output signal to be output in response to inputting of the input signal in the circuit, and one or more skills required to generate the output signal from the circuit.

12. A skill determination system for determining one or more skills of a user, comprising:  
a skill determination server; and  
a skill determination client being connected to

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the skill determination server via a network,  
wherein

the skill determination client, in response to receipt of a question file to determine the one or more  
5 skills of the user as a design engineer from the skill determination server and one or more answers to the question file from the user, supplies an answer file corresponding to the one or more answers to the skill determination server; and

10 the skill determination server, in response to receipt of the answer file from the skill determination client, evaluates knowledge of the user based on a comparison result between the answer file and a correct answer file corresponding to the question file and  
15 determines the one or more skills of the user as a design engineer.

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13. A skill determination system for determining one or more skills of a user, comprising:  
a skill determination server;  
a skill determination client being connected to  
25 the skill determination server via a network; and  
a skill determination evaluation board being connected to the skill determination client via an interface,

wherein

30 the skill determination client, in response to receipt of a question file to determine the one or more skills of the user as a design engineer from the skill determination server and one or more answers to the

question file from the user, supplies an answer file corresponding to the one or more answers to the skill determination evaluation board;

the skill determination evaluation board, in  
5 response to receipt of the answer file from the skill determination client, configures a circuit corresponding to the answer file on an actual element, and in response to receipt of an input signal to conduct logic verification on the circuit from the skill determination  
10 server, supplies an answer output signal generated from the circuit in response to inputting of the input signal in the circuit to the skill determination server; and

the skill determination server, in response to receipt of the answer output signal from the skill  
15 determination evaluation board, evaluates knowledge of the user based on a comparison result between the supplied answer output signal and a correct answer output signal to be output in response to inputting of the input signal in the circuit and determines the one or more skills of the  
20 user as a design engineer.

25 14. A skill determination system for determining one or more skills of a user, comprising:  
a skill determination server;  
a skill determination client being connected to  
the skill determination server via a network; and  
30 a skill determination evaluation board being connected to the skill determination client via an interface,  
wherein



the skill determination client, in response to receipt of a question file to determine the one or more skills of the user as a design engineer from the skill determination server and one or more answers to the question file from the user, supplies an answer file corresponding to the one or more answers to the skill determination evaluation board;

the skill determination evaluation board, in response to receipt of the answer file from the skill determination client, configures a circuit corresponding to the answer file on an actual element, and in response to receipt of an input signal to conduct logic verification on the circuit and a correct answer output signal to be output in response to inputting of the input signal in the circuit from the skill determination server, supplies a comparison result between the correct answer output signal and an answer output signal generated from the circuit to the skill determination server; and

the skill determination server, in response to receipt of the comparison result from the skill determination evaluation board, evaluates knowledge of the user based on the supplied comparison result and determines the one or more skills of the user as a design engineer.

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15. A skill determination server for determining one or more skills of a user manipulating a skill determination client as a design engineer, comprising:

a question file supply part supplying a question

file to determine the one or more skills of the user to the skill determination client; and

5 a skill determination part, in response to receipt of an answer file corresponding to one or more answers to the question file from the skill determination client, evaluating knowledge of the user based on a comparison result between the answer file and a correct answer file corresponding to the question file and  
10 determining the one or more skills of the user as a design engineer.

15 16. A skill determination server for determining one or more skills of a user manipulating a skill determination client as a design engineer, comprising:

20 a question file supply part supplying a question file to determine the one or more skills of the user to the skill determination client;

an input signal supply part supplying an input signal to conduct logic verification on a circuit configured on an actual element to a skill determination  
25 evaluation board connected to the skill determination client via an interface; and

30 a skill determination part, in response to receipt of an answer output signal generated from the circuit in response to inputting of the input signal in the circuit from the skill determination evaluation board, evaluating knowledge of the user based on a comparison result between the supplied answer output signal and a correct answer output signal to be output in response to

the inputting of the input signal in the circuit and determining the one or more skills of the user as a design engineer.

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17. A skill determination server for determining one or more skills of a user manipulating a skill determination client as a design engineer, comprising:

a question file supply part supplying a question file to determine the one or more skills of the user to the skill determination client;

15 an input and output signal supply part supplying an input signal to conduct logic verification on a circuit configured on an actual element and a correct answer output signal to be output in response to inputting of the input signal in the circuit to a skill determination evaluation board connected to the skill determination client via an interface; and

20 a skill determination part, in response to receipt of a comparison result between the correct answer output signal and an answer output signal generated from the circuit in response to inputting of the input signal in the circuit from the skill determination evaluation board, evaluating knowledge of the user based on the comparison result and determining the one or more skills of the user as a design engineer.

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18. A skill determination client for a skill determination system having a skill determination server, the skill determination client connected to the skill determination server via a network, and a skill determination evaluation board connected to the skill determination client via an interface, comprising:

an interface part being configured to connect to the skill determination evaluation board; and

an answer file supply part, in response to receipt of a question file to determine one or more skills of a user as a design engineer from the skill determination server and one or more answers to the question file from the user, supplying an answer file corresponding to the one or more answers to the skill determination evaluation board.

19. A skill determination evaluation board for a skill determination system having a skill determination server, a skill determination client connected to the skill determination server via a network, and the skill determination evaluation board connected to the skill determination client via an interface, comprising:

a circuit generation part, in response to receipt of an answer file corresponding to one or more answers to a question file from the skill determination client, generating a circuit corresponding to the answer file on an actual element;

an input signal buffer temporarily storing an input signal to conduct logic verification on the circuit supplied from the skill determination server and supplying

the input signal to the circuit at a predefined timing;  
and

an output signal buffer temporarily storing an  
answer output signal generated from the circuit in  
5 response to inputting of the input signal in the circuit  
and supplying the answer output signal to the skill  
determination server.

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20. A skill determination evaluation board for  
a skill determination system having a skill determination  
server, a skill determination client connected to the  
15 skill determination server via a network, and the skill  
determination evaluation board connected to the skill  
determination client via an interface, comprising:

a circuit generation part, in response to  
receipt of an answer file corresponding to one or more  
20 answers to a question file from the skill determination  
client, generating a circuit corresponding to the answer  
file on an actual circuit;

an input signal buffer temporarily storing an  
input signal to conduct logic verification on the circuit  
25 supplied from the skill determination server and supplying  
the input signal to the circuit at a predefined timing;

a comparison part obtaining an answer output  
signal generated from the circuit in response to inputting  
of the input signal in the circuit and comparing the  
30 answer output signal to a correct answer output signal to  
be output in response to the inputting of the input signal  
in the circuit;

an output signal buffer, in response to receipt

of the correct answer output signal from the skill determination server, temporarily storing the correct answer output signal and supplying the correct answer output signal to the comparison part; and

- 5               a comparison result buffer temporarily storing a comparison result supplied from the comparison part and supplying the comparison result to the skill determination server.